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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/472,989	12/28/1999	SHUNSUKE INOUE	684.2946	9449

5514 7590 04/23/2003

FITZPATRICK CELLA HARPER & SCINTO  
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NEW YORK, NY 10112

EXAMINER

ABDULSELAM, ABBAS I

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 04/23/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

09/472,989

Applicant(s)

INOUE ET AL.



Examiner

Abbas I Abduselam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 February 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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## **DETAILED ACTION**

### **Claim Rejections 35 U.S.C. 103**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Omae et al. (USPN 5963283) in view of Hardt (USPN 5387901) and Matsumoto et al. (USPN 5694190).

Regarding claims 1 and 7, Omae teaches about a liquid crystal panel and projection display device for enlarging and projecting to a screen (176). Omae teaches images displayed on a small liquid crystal panel (177) are enlarged and projected using project lens (174). In connection to liquid crystal panels, Omae teaches an LCD layer with sides of substrate (11, 12) as shown in Fig 1 and further teaches specific electrode pattern on a circuit board, and electrode substrates in pixel display area. See column 1, lines 9-15, 20-23, column 2, lines 6-15, and column 4, lines 13-21, and Fig 21. However, Omae does not teach about a projection holder fixed on the circuit board for holding the display panel and positioning means for positioning the holder and projection lens support. Hardt on the other hand teaches lens members (48, 48b) inserted in their respective socket cavities (128, 130), the circuit board (102) supported behind the mounting socket structure (100) to position the upper LED device (46a). See col. 7, lines 36-49, Fig and 10.

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Therefore, it would have been obvious to one having skill in the art at the time of the invention was made to modify Omae's projection display device to adapt Hardt's configuration of light assembly structure as shown in Fig 2 .One would have been motivated in view of the suggestion in Hardt that the socket structure (100), socket cavities (128, 130) and circuit board (102) are functionally equivalent to the desired projection holder, positioning means and circuit board respectively. The use of socket structure along with the circuit board helps function a display system with light emitting device.

Omae has been described above. However, Omae does not disclose a scenario where the first electrodes of the display panel and the second electrodes of the circuit board are electrically connected by way of a connector such that first electrodes are brought into contact with a connector. Matsumoto on the other hand teaches a connector (4) having a conductive contact (4a), and having a contact with the signal input electrode portion (1a)when the liquid crystal panel (1) and the circuit board (5) are connected together. See col. 4, lines 38-54 and Fig 1.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Omae's projection display device to include Matsumoto's electrode connections. One would have been motivated in view of the suggestion in Matsumoto that the input electrode, the connector along with the conductive contact area equivalently provide the desired configurations of the electrodes with a connector. The use of input electrode, connector and conductive contact area helps function LCD device as taught by Matsumoto.

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Regarding claims 3-4, See Hardt's Fig 10 (128, 130). Hardt also teaches lens portion (48) being outwardly receivable through lens opening (40).

Regarding claim 5, See Matsumoto's Fig 1.

Regarding claim 6, Omae teaches a liquid crystal panel (177) with respect to the formation of an optical images. Omae teaches the formation as a change in light scattering is converted to a change in brightness on the screen (176). Column 18, lines 44-55.

### **Conclusion**

2. The prior art made of record and not relied upon is considered to applicant's disclosure.

The following arts are cited for further reference.

U.S. Pat. No. 5,446,635 to Jehn

U.S. Pat. No. 5,283,802 to Hsiung

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3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Abbas Abdulsalam** whose telephone number is **(703) 305-8591**. The examiner can normally be reached on Monday through Friday (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard Hjerpe** can be reached at **(703) 305-4709**.

**Any response to this actions should be mailed to:**

Commissioner of patents and Trademarks

Washington, D.C. 20231

**or faxed to**

**(703) 872-9314**

Hand-delivered responses should be brought to Crystal Park II, Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or preceding should be directed to the Technology center 2600 Customer Service office whose telephone number is (703) 306-0377.



Abbas Abdulsalam

Examiner

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**RICHARD HJERPE**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**